The outpatient Nurse Practitioner (NP) role in this large Bone Marrow Transplant (BMT) Program is very recent. At first, one single NP demonstrated the efficacy of the role by decreasing the overwhelming workload of the collaborating physician. The department quickly recognized the positive impact of the NP role and over the next two years five additional NPs with varying degrees of BMT and NP experience were hired. Soon role confusion and conflict arose between NPs and RN Nurse Coordinators (NC) whose primary focus is to move the patient towards the transplant process, coordinate treatments and triage phone calls. It is inherent in these two roles that some overlap of duties exist. However it became clear that within the management and departmental structure the NP and NC role needed to be more clearly separated and defined. Using the Medical Center's and University's Scope of Practice Statement, a proposal for NP leadership development was conceptualized and implemented. The proposal was distributed to management and collaborating physicians. Specifically three areas were addressed: 1) identification and dclarification of the NP role in the BMT outpatient setting; 2) planning for professional growth in disease management and leadership according to each individual NP's needs; 3) implementation of various evidence based national BMT standards of care practices and involvement in BMT nursing and departmental research. Implementation of this model began in May 2007 with the NPs agreeing on the following goals: a) assigning a group leader on a rotational basis to be responsible for scheduling NP time-off clinic coverage; delegating interdepartmental and hospital meeting attendance; b) assisting in equitable distribution of annual conference participation, overseeing the participation in departmental (non-industry sponsored) CME educational and outreach talks given by NP members; c) scheduling educational and journal club meetings for NPs, Ncs and treatment room RNs; d) proposing research, following up on ongoing research processes; facilitating the development of BMT specific standards of practice; encouraging and assisting publishing efforts; e)addressing NP practice and role conflict issues. This NP leadership model will be reassessed for its effectiveness in meeting its goals on an annual basis. It will provide valuable insight into the many clinical, managerial and research contributions NPs make within this Bone Marrow transplant department.

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"WHAT AM I GETTING INTO?": DEVELOPING A GVHD CLASS FOR PRE-TRANSPLANT PATIENTS

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Background: HSCT patients often arrive for their pretransplant workup with little understanding of Graft Versus Host Disease. Their priorities include orienting to the institution; setting up a caregiver, housing, and finances; "passing" the evaluation; and making it to "Day 0." Their focus is on curing their disease. At arrival, they tend to be overwhelmed with printed materials, complex consent forms, packed schedules of appointments, and dozens of new faces. Understandably, they are not contemplating survival with a chronic condition such as GVHD. Yet, up to 80% of allogeneic transplant patients will develop acute GVHD, and many will go on to develop chronic GVHD. To gloss over this reality in the early transplant experience is to do patients a disservice. Arguably, patients need this information to give true informed consent for transplant. **Proposal:** At SCCA, nurses have identified this gap in patient education. Our initiative is to develop a basic class on GVHD. Patients currently learn about GVHD in "doses" during conferences or visits with physicians, PA's, nurses, and pharmacists, or in our Patient Reference Manual. A short class could help patients synthesize and retain this knowlege. Patients later diagnosed with GVHD would be better prepared to consider research protocols that could benefit them. Also, a foundation in GVHD may decrease staff time explaining one-on-one. Our challenges include translating a complex area of immunology into simple language; presenting it in a format suitable to a wide range of learning styles; and maintaining hope in the context of a subject that may be frightening. **Method:** The class will be an informal, one-hour session, offered weekly, taught by a clinic RN. While not mandatory, the class will be printed on each patient's schedule to promote attendance. Currently under development, the final content will be reviewed for feedback by patients and medical faculty. The format will be Power Point with printed handouts. Language will be in accordance with NCI's "Pink Book" guide for health communication programs. Time will be allotted for a short quiz, review, evaluations, and Q & A. Patients may attend as often as they wish. **Conclusion:** The goal of this nurse-driven initiative is to hasten patients' understanding of what may be the most significant outcome of their transplant: survivorship with GVHD. Thus empowered, they may more likely partner with us in research efforts to improve their long term survival.

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THE CASE STUDY APPROACH: BRIDGING GAPS IN NURSING EDUCATION

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The training and education of a pediatric blood and marrow transplant nurse is a vital component of the foundation related to patient safety. New treatment modalities and increasing complexities provide unique challenges in ensuring that nurses are continually fully prepared to care for this patient population. A case study course unique to the Pediatric Blood and Marrow Transplant Unit (PBMTU) at Duke University Medical Center was the method of choice in establishing an ongoing unit-based continuing education program.

The case study method of education redefines the traditional educational dynamic in which the teacher dispenses knowledge and the student dutifully absorbs it. The case study method creates an effective classroom in which students are successful not only by simply absorbing facts, but also by exercising the skills of leadership and collaboration as they work to unravel the case. Students forge the bonds of teamwork and learn the skills of reliance and trust as they unite with the common goal of deciphering the case. Establishing teamwork amongst the nurses is integral in supporting care delivery in this high acuity setting.

The goal of this course was to provide a structure for all PBMTU nurses to validate or revalidate competencies with clinical equipment, caregiver education, and nursing care delivery related to hospital policies, unit standards, and accreditation procedures. Driving every case presented in this course were the fundamental concepts of re-establishing foundations, bridging gaps in practice, and maintaining consistency within nursing practice. Every case encourages teamwork and serves to enhance and refine the staff member's knowledge of nursing care delivery on the PBMTU. This course has been designed, approved by Duke's Education Services Department, and implemented with 100% of PBMTU nursing staff attendance.

The purpose of this poster is to present the Duke Pediatric Blood and Marrow Transplant Unit case study program.

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DEVELOPING A COMPREHENSIVE BMT SPECIFIC ICU TRAINING PROGRAM FOR COMPETENT BMT NURSES

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Blood and Marrow Transplant (BMT) patients often become critically ill during the first 100 days post transplant. Intensive Care Unit (ICU) admit rates for these patients range from 24–40% with cardiopulmonary collapse and sepsis being the most frequent reasons for ICU admission. Several years ago, the BMT unit of a comprehensive cancer center initiated a protocol for accommodating the ICU patients within the established BMT unit. A small group of nurses were given intensive care training. More ICU-trained nurses were needed as bed capacity in the unit increased. Determining the best way to train competent BMT nurses in intensive care skills became a challenge. Challenges included: limited opportunities for clinical experiences due to fluctuating BMT ICU census; suboptimal clinical opportunities in other ICU's with

non-oncology patients and preceptors; and the BMT staff's discomfort level in mastering ICU skills. The Clinical Nurse Specialist (CNS) developed a training program that included BMT specific critical care education and clinical training in a human simulator laboratory. Components of the class included: pulmonary physiology and ventilator basics with trouble shooting strategies presented by a respiratory therapist; a critical care policy and procedure game; review of BMT specific complications that lead to the need for intensive care such as sepsis and intracranial hemorrhage. These complications were then presented in the human simulator laboratory.

The initial class was a preceptor training program designed for the small group of nurses who currently cared for the BMT ICU patients. This group was educated on precepting skills for experienced nurses. The second class, designed for the staff who has attended didactic ICU training, has been implemented as well. Evaluations of the program were positive and rated the simulator laboratory as an experience that all staff should have. A plan has been established to send the remaining staff though this training program. Additionally, each nurse will be paired with a BMT ICU preceptor for the clinical experience needed to gain competence to care for BMT ICU patients. Continual ICU education is now a part of yearly skills days and incorporated into the overall education plan for all unit staff.

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DENIALS AND APPEALS PROCESSING MADE MAJOR IMPACT IN PATIENT ACCESSING STEM CELL TRANSPLANTATION

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Denials of coverage by insurance carriers are major problems for patients requiring stem cell transplantation (SCT). Submitting treatment plans for SCT to the third party payors may result to denials and potential delay of treatments for patients. The large volume of denied SCT services plus the complexity of insurance appeal process became an enormous hurdle for patients and cancer centers, clinically and financially.

In one of the largest SCT centers in the country, appeals of denied services were previously handled by the patient's Patient Access Coordinator (PtAC). Several of these denials were upheld after several appeals. Through team consensus, it was deemed necessary to have one PtAC to concentrate on handling all the appeals for the department in May 2004. The common reasons for denials were monitored and recorded. The reasons for denials include: investigational protocols - 88%, deemed not a covered benefit - 5%, phase of protocol not covered - 2%, and the other reasons like: insurance criteria not met, out of network, lack of clinical information, not covered by plan language, deemed clinical trial are all less than 1% of cases. The attending physicians/multidisciplinary team were educated on these reasons and how to avoid denials. If denials are still received for SCT services, these steps were taken: instructed patient to request assistance from case manager/employer to overturn denial, verbal appeal by PtAC, peer-to-peer review between MD and medical reviewer, appeal letter/supporting documents sent, switch treatment plan to SOC from a clinical trial, and vigorous appeal/negotiation during appeal panel session.

Staggering results showed overturned denial of 50% - April 2004-March 2005, 53% - April 2005 – March 2006, and 52% - April 2006 – March 2007 respectively. This process truly relieves patients from complicated appeal process and enables other PtAC's to focus on other duties.

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PLASMA B-TYPE NATRIURETIC PEPTIDE: ITS ROLE IN PEDIATRIC HEMATOPOIETIC STEM CELL TRANSPLANTATION AND IMPLICATIONS FOR NURSES

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The process of and procedures surrounding hematopoietic stem cell transplantation (HSCT) can produce significant and acute morbidity in pediatric patients. One system at risk for compromise following transplantation is the cardiovascular system, specifically injury to the myocardium. Damage to the heart can occur through a variety of mechanisms and certain patient populations may be at higher risk for sequelae from cardiovascular injury. Judicious monitoring of patients and early recognition of impending problems are important to minimize complications following HSCT and the need for additional medical interventions. However, methods to diagnose early acute complications, such as cardiac catheterization, are often not practical in pediatric HSCT recipients. Reliance on monitoring heart rate and blood pressure to signal impending cardiovascular problems are non-specific and may not lead to early indications of heart-related adverse events. Therefore, we have developed a method to complement serial monitoring of vital signs to identify cardiac compromise by longitudinal measurements of plasma B-type natriuretic peptide (pBNP).

Recognizing that the role of this peptide is not fully understood in patients undergoing HSCT, the basic understanding of pBNP by our nursing staff was limited. Therefore, the need for educating nurses involved in the care of HSCT patients and monitoring of patients' cardiac function was identified. A self-assessment tool has been created to measure nurses' understanding of cardiac complications such as congestive heart failure (CHF) and the clinical utility of pBNP in this setting. Nurses assigned to the care of HCST patients have been asked to complete this self-assessment tool. Upon completion of the pre-test, nurses participate in a learning module which aims to enhance their understanding of cardiac adverse events, the role of pBNP in this patient group and relevant clinical interventions. Improvement and gains in knowledge are measured through the administration of a post-test. We will present staff educational materials and the results of pre- and post-test self-assessment examinations. Additionally, nursing roles and responsibilities relating to identifying and caring for high-risk pediatric patients will be summarized. This use of pre- and post-assessment tools demonstrates how nurses can be taught to improve their vigilance and management of cardiac toxicities in children undergoing HSCT.

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IMPLEMENTING A PROCESS TO UPDATE REFERRING PHYSICIANS REGARDING UNRELATED DONOR SEARCH ACTIVITY

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Background: The process of identifying a suitable unrelated donor or cord blood unit can take days to weeks. During the search process, ongoing communication between the transplant center and referring physician is crucial to a successful unrelated donor transplant. The unrelated donor search team at Siteman Cancer Center identified a need to improve the process of updating referring physicians regarding their patient's donor search and took steps to implement a well defined process. **Objectives:** As a transplant center with a large volume of unrelated donor search activity, the donor search team identified the following key items for a successful process: the process must require a limited amount of time to complete, the information provided must be concise yet informative, and the language used must be similar to that found in resources from the National Marrow Donor Program to avoid misunderstanding of information provided. **Method:** The unrelated donor search team divided the search process into three phases: preliminary, formal and donor selection/workup.

A one page form was developed for each phase along with guidelines regarding the frequency of completing the update.

1) Preliminary phase: The update form contains a short description of a preliminary search, the number of potential donors and recommendation regarding a donor search. This is completed at the time of the preliminary search.

2) Formal phase: The form contains a description of a formal search and a summary detailing the progress of identifying a donor